

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

EMSAT ADVANCED GEO-LOCATION	§	
TECHNOLOGY, LLC AND LOCATION	§	
BASED SERVICES LLC	§	
	§	
vs.	§	CASE NO. 2:08-CV-381-DF-CE
	§	
METROPCS COMMUNICATIONS, INC.,	§	
ET AL.	§	

**MEMORANDUM OPINION AND ORDER**

After considering the submissions and the arguments of counsel, the court issues the following order concerning the claim construction issues:

**I. Introduction**

In this case, the plaintiffs EMSAT Advanced Geo-Location Technology, LLC (“EMSAT”) and Location Based Services LLC (“LBS”) contend that the defendant Centennial Communications Corp. (“Centennial”) infringes various claims of United States Patent Nos. 5,946,611 (“the ‘611 patent”), 6,324,404 (“the ‘404 patent”), 6,847,822 B1 (“the ‘822 patent”), and 7,289,763 B2 (“the ‘763 patent”). This memorandum addresses the parties’ various claim construction disputes. The court will first briefly address the technology at issue in the case and then turn to the merits of the claim construction issues.

**II. Background of the Technology**

All four patents generally relate to determining the geographical position of mobile phones and using that position to enhance communications services. The title of all four patents is “Cellular Telephone System that Uses Position of a Mobile Unit to Make Call Management Decisions.” The invention claimed in the ‘611 patent is generally described in the Abstract:

A cellular telephone system includes a plurality of cell sites and a mobile telephone

switching office. Call management, including selection of a cell site most appropriate for a call associated with a mobile unit, are made based on the geographic location of the mobile unit as opposed to the strength of the signal associated with the call. The geographic location of the mobile unit is precisely determined using a NAVSTAR global positioning system, or its equivalent. Each mobile unit includes a GPS receiver that receives information from a geostationary satellite to determine the precise location of the mobile unit. This position information is relayed to the cell site initially managing the mobile unit, and the mobile unit is handed off to a cell site that is most appropriate for the call. Initial selection of an entrance cell site is made based on signal strength, but further call management decisions are made based on location of the mobile unit.

The Abstract of the ‘404, ‘822, and ‘763 patents is quoted below:

A cellular telephone system has call management decisions made based on the exact geographic location of the mobile unit. These call management decisions include billing and taxing decisions, cell site selection, frequency selection and even cellular system selection. The decisions are continuously updated during a call whereby decisions can be made and changed regardless of where a call originated. Cell site location, and even cellular system selection, can be made in a specific manner to best serve the needs of the mobile user, the cellular system as well as the public. It is even possible for a cellular system to locate one or more of its cell sites in the geographic area served by another cellular system. In some cases, cellular systems might even share cell sites.

The court will now address the legal principles of claim construction and then construe the relevant terms of the ‘611, ‘404, ‘822, and ‘763 patents.

### **III. General Principles Governing Claim Construction**

“A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999) (quoting *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989)). Claim construction is an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the

specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996) (quoting *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 1561 (Fed. Cir. 1991)). Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. 35 U.S.C. § 112; *id.* at 978. A patent's claims "must be read in view of the specification, of which they are a part." *Markman*, 52 F.3d at 979. "For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims." *Id.* "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's claims. Otherwise, there would be no need for claims. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). And, although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Scis., Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994). This court's claim construction decision must be informed by the Federal Circuit's decision in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the *claims* of a patent define the invention to which the patentee is entitled the right to exclude." *Id.* at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water*

*Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)) (emphasis added). To that end, the words used in a claim “are generally given their ordinary and customary meaning.” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention. *Id.* The patent is addressed to and intended to be read by others skilled in the particular art. *Id.*

The primacy of claim terms notwithstanding, *Phillips* made clear that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Phillips*, 415 F.3d at 1313. Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of “a fully integrated written instrument.” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314-17. The Supreme Court stated long ago that “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will

be, in the end, the correct construction.

*Phillips*, 415 F.3d at 1316. Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. The prosecution history helps to demonstrate how the inventor and the PTO understood the patent. *Id.* at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence. *Id.* That evidence is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Id.*

*Phillips* rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. *Id.* The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Phillips*, 415 F.3d at 1319-24. The approach suggested by *Texas Digital*—the assignment of a limited role to the specification—was rejected as inconsistent with decisions holding the specification to be the best guide to the meaning of a disputed term. *Id.* at 1320-21 (quoting *Vitronics*, 90 F.3d at 1582). According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that “[t]he patent system is based on the proposition that the claims cover only the invented subject matter.” *Id.* What

is described in the claims flows from the statutory requirement imposed on the patentee to describe and particularly claim what he or she has invented. *Id.* The definitions found in dictionaries, however, often flow from the editors' objective of assembling all of the possible definitions for a word. *Id.* at 1321-22.

*Phillips* does not preclude all uses of dictionaries in claim construction proceedings. *Phillips*, 415 F.3d at 1322. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. *Id.* at 1317-19. In doing so, the court emphasized that claim construction issues are not resolved by any "magic formula." *Id.* at 1324. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323-25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant. *Id.* at 1324.

In construing the claim terms, the court must also determine whether any claim terms are invalid as being indefinite. The statutory requirement of definiteness states that the claims must "particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention." 35 U.S.C. § 112, ¶ 2. "[T]he purpose of the definiteness requirement is to ensure that the claims delineate the scope of the invention using language that adequately notifies the public of the patentee's right to exclude." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005). "The definiteness requirement, however, does not compel absolute clarity. Only claims not amenable to construction or insolubly ambiguous are indefinite." *Id.* (internal quotations omitted).

#### **IV. Agreed Terms**

The parties have stipulated to the construction of the following term:

- “based on the comparison regardless of cell site location” means “based on the comparison [of step E of the ‘611 patent, claim 1] instead of based on cell site location.”

#### **V. Disputed Terms**

##### **A. “exact geographic location”**

Claim 1 of the ‘611 patent contains the term “exact geographic location”: “determining the *exact geographic location* of the mobile unit place the call requesting emergency service.” This term is discussed in the specification: “The *exact location* of each mobile unit is determined using a Global Positioning System (GPS), LORAN, or other position determining system.” (‘611 patent, 3:36-39) (emphasis added). “[T]he mobile unit uses the GPS receiver 24 and GPS satellite 22 and to determine its *exact geographic* coordinates, such as longitude and latitude.” (‘611 patent, 6:22-24) (emphasis added). EMSAT and LBS assert that this term means “a position in longitude and latitude having a degree of accuracy and precision typical of that obtained from a Global Positioning System (GPS), LORAN, or other position determining system.” Centennial argues that “exact geographic location” is indefinite. Alternatively, Centennial proposes “a precise and accurate position in latitude and longitude that is not determined using cell site location, cell site ID, coverage area, signal strength, two-way ranging, or hyperbolic ranging.”

Centennial first contends that this term is insolubly ambiguous because the patent provides no objective standard from which to determine how “exact” the geographic location must be. In support of its argument, the defendant cites *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342 (Fed. Cir. 2005), in which the Federal Circuit held that “aesthetically pleasing” failed to

provide one of ordinary skill in the art any criteria to determine whether this limitation is met. *Id.* at 1349. But unlike *Datamize*, in which the specification provided no objective criteria, the ‘611 patent explains that the exact geographic location is calculated using GPS, LORAN, or other position determining systems. Although “other position determining systems” does not delineate how exact the determination must be, one of skill in the art would know how accurate and precise GPS and LORAN were. Thus, “exact” refers to the degree of accuracy and precision provided by the specified position determining systems, GPS and LORAN, at the time of the invention.

Second, Centennial argues that “exact geographic location” does not include the following position determining methods: cell site location, cell site ID, coverage area, signal strength, two-way ranging, or hyperbolic ranging. According to the defendant, the patentees disclaimed these position determining methods because they do not provide *exact* geographic location. In response to a PTO rejection for obviousness in view of the Schaible, Comroe, Freeny, Ito, and Frost references, the applicants amended the claims to add the limitation “exact” before “geographic location” and argued that the cited references are distinguishable. (Dkt. No. 138, Ex. 9). The applicants distinguished Schaible because it uses signal strength, which is merely an “*indication* of location,” and Comroe because it uses cellsite location. In response to Centennial’s prosecution history disclaimer argument, the plaintiffs contend that the applicants distinguished Schaible and Comroe because they merely estimate distance rather than providing longitude and latitude. But the addition of the modifier “exact” indicates that the applicants were distinguishing based on the prior art’s lack of precision and accuracy. The plaintiffs’ relative position versus longitude and latitude argument is not apparent anywhere in the applicants’ response to the PTO. And, even if the applicants did distinguish Schaible and Comroe based on their failure to provide longitude and latitude, their

arguments criticized Schaible's and Comroe's position determination technologies due to this alleged shortcoming. Thus, the applicants disclaimed signal strength and cellsite location techniques. On the other hand, the court concludes that the applicants did not clearly and unmistakably disclaim the other position determining methods disclosed by the prior art references, i.e., cell site ID, coverage area, two-way ranging, or hyperbolic ranging. In all, the court construes this term to mean "a position in longitude and latitude, not determined using signal strength or cellsite location techniques, having a degree of accuracy and precision typical of GPS and LORAN systems available at the time of invention."

**B. "service provider"**

The term "service provider" is found in the preamble of the '404 patent's claim 9: "A method of making communication process management decisions in a wireless over-the-air communications system having a plurality of *service providers* and an MTSO comprising . . . ." This term is used throughout the specification, e.g., "a wireless over-the-air communications system that can efficiently work with emergency *service providers*," ('404 patent, 8:25-27), "billing and taxing issues are important to current land based wireless communications systems *service providers*," ('404 patent, 14:37-39), and "two or more bordering *service providers* could erect single cells on or very near the border," ('404 patent, 14:61-62) (emphasis added). The plaintiffs state that the ordinary meaning of "service provider" is clear and unambiguous and thus requires no construction. The defendant's proposed construction is a "provider of wireless communications service (i.e., wireless carrier)."

Centennial contends that one of ordinary skill in the art, reading the claim language and specification, would understand that the term "service provider" refers to wireless service providers

(providers of wireless communications services). Centennial argues that whenever the specification uses the term “service provider” without qualifiers, the term always refers to wireless service providers: e.g., “competing *service providers* can locate their cell sites anywhere where the wireless reception will allow them to provide the best wireless coverage of their territory.” (‘404 patent, 8:58-61) (emphasis added).

EMSAT and LBS argue that the plain and ordinary meaning of “service provider” is self-evident, and the scope of this term should not be limited to wireless carriers. The plaintiffs note that the specification’s use of “service provider” is not limited to only wireless service providers: “It is another object of the present invention to provide a wireless over-the-air communications system that can efficiently work with *emergency service providers*.” (‘404 patent, 8:25-27) (emphasis added). Most importantly, claim 39 illustrates that the term “service provider” includes emergency service providers: “wherein said *service provider* includes an *emergency service provider*.” *See Phillips*, 415 F.3d at 1314 (noting that “the usage of a term in one claim can often illuminate the meaning of the same term in other claims”).<sup>1</sup> As such, the court holds that “service provider” is not limited to wireless service providers and construes this term to mean “a company that makes services available to third parties.”

### C. “override criteria”

Claim 9 of the ‘404 patent contains the term “override criteria”: “establishing *override criteria* from a group consisting of billing, taxing, CP (communications process) rating, service requested by a user of a mobile unit and CMR (cellular mobile radio) system.” Claim 9 expresses this term in the form of a Markush group. Manual of Patent Examining Procedure § 2173.05(h).

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<sup>1</sup> The court observes that the antecedent basis for “service provider” in claim 39 is unclear. Even so, the claim provides support for the plaintiffs’ construction.

The term “override criteria” is not found in the specification. The plaintiffs contend that this term means “a preemptive rule for deciding, updating or adjusting something.” Centennial asserts the following construction: “two or more rules that alter the operation of the system based on the exact location of the mobile unit.”

First, the defendant argues that the override criteria must be based on the exact location of the mobile unit. In claim 9, step (a) establishes the exact geographic location, step (b) establishes override criteria, and step (c) directs the communication process based on the override criteria. But neither step (b) nor (c) explicitly refer to or use step (a)’s exact geographic location. Thus, according to Centennial, the override criteria must be based upon the exact geographic location determined in step (a), or step (a) would be superfluous. EMSAT and LBS do not contest Centennial’s argument. Thus, the court holds that the override criteria must be based upon the “exact geographic location.”

Second, Centennial argues that two or more members of the Markush group must be selected because the claim uses the word “criteria,” which is the plural form of “criterion.” In response, the plaintiffs contend that “criteria” is commonly used in singular form. Merriam-Webster Online Dictionary, <http://http://www.merriam-webster.com/dictionary/criteria> (“The plural *criteria* has been used as a singular for over half a century.”). But Centennial quotes other dictionary definitions that state that criteria is always plural. *E.g.*, Webster’s II New Riverside University Dictionary 328 (1994) (“Criteria is a plural form and should not be substituted for the singular form criterion.”). EMSAT and LBS also cite the prosecution history, in which the examiner referred to “an override criteria”; according to the plaintiffs, this statement indicates that the PTO considered “criteria” to be singular. Finally, the plaintiffs assert that the specification uses “criteria” in its singular form.

(‘404 patent, Fig. 8, Step 114A ( “Has update criteria expired?”)). Centennial notes, however, that the specification also uses “criteria” in its plural form. (‘404 patent, Fig. 8, Step 114B (“Update on interval criteria (time, distance)”), 7:16-17 (“when the criteria are met”)).

Although the prosecution history and specification are ambiguous, the claim language is drafted to require plural “criteria.” The disputed claim language contains no words, such as “at least one,” “one or more,” or even an indefinite article like “a” or “an,” that suggest the possibility of a single criterion. Therefore, the court construes “override criteria” to mean “two or more preemptive rules that alter the operation of the system based upon the ‘exact geographic location’ of the mobile unit.”

#### **D. “subsequent services”**

The term “subsequent services” is found in claim 10 of the ‘822 patent: “a data storage system for recording said exact geographic location and specific mobile unit identification for use in *subsequent services*.” The specification does not use the term “subsequent services.” Claim 22, which depends from claim 10, provides clarification of this term”: “wherein said data storage system makes said exact geographic location information available for one or more of *rate, message unit, tax, billing or location services provisioning*.” The plaintiffs initially proposed “a service that obtains the recorded exact geographic location and mobile unit identification after completion of the communication process that recorded them.” Later, the plaintiffs offered an alternative construction: “a service occurring during a call in progress, including emergency 911, taxes, communication process rating, message unit, customer service frequency selection, changing frequencies, changing cell site (handover) and changing cell system.” According to Centennial, “subsequent services” means “subscriber services occurring after the communication process between the network and the

specific mobile unit has ended.”

The plaintiffs argue that “subsequent services” includes both “Online Uses (Real Time)” (the left-hand column of ‘822 patent’s Figure 8) and “One-Time Offline Uses” (the right-hand column of ‘822 patent’s Figure 8). The plaintiffs contend that the claim language supports their position, because both sets of services occur “subsequent” to “recording said exact geographic location and specific mobile unit identification.” EMSAT and LBS also note that the construction given by the Examiner during reexamination is “a service occurring during a call in progress, including emergency 911, taxes, communication process rating, message unit, customer service frequency selection, changing frequencies, changing cell site (handover) and changing cell system”; these services are the “Online Uses” illustrated in the left side of Figure 8.

Centennial responds that the court should give no weight to the Examiner’s construction; the Examiner is required to give a claim its “broadest reasonable interpretation,” while the court must apply the *Phillips* standard of the ordinary artisan’s perspective at the time of the invention. The defendants also argue that the plaintiffs’ construction renders “subsequent” superfluous because any service must occur after recording the exact geographic location and mobile unit identification. *See Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005). Therefore, Centennial contends that the “subsequent services” are the “One-Time Offline Uses” shown on the right side of Fig. 8 and these services occur after the communication process has completed.

The court notes that claim 21, which depends from claim 10, further limits the “data storage” element and teaches that “emergency services provisioning” is one of the “subsequent services”: “wherein said data storage system makes said exact geographic location information accessible for *emergency services provisioning*.” Provisioning of emergency services, such as emergency calls

made during a non-emergency communication process ('822 patent, 13:1-3, Fig. 8 block 120), must occur before the call has ended.<sup>2</sup> Thus, subsequent services are not limited to offline services that occur after the call ends. The court therefore construes "subsequent services" to mean "a service that occurs after the exact geographic location and specific mobile unit identification have been recorded."

#### **E. "location-based service"**

The term "location-based service" appears three times in claim 23 of the '763 patent: "A method of providing a *location-based service* comprising the steps of . . . receiving a request for a *location-based service* from the mobile unit; . . . responding to the request for a *location-based service* based on the comparison." "Location-based service" is not found in the specification. The plaintiffs' proposed construction is "a service providing information based, at least in part, on the location of the mobile unit," and the defendant's proposed construction is "wireless communications service provided based, at least in part, on the location of the mobile unit."

The parties reiterate their dispute, discussed in "service provider," over whether "service" should be limited to "wireless service." For the reasons discussed above, the court concludes that "service" is not limited to only wireless service. Thus, "location-based service" is construed to mean "a service providing information based, at least in part, on the location of the mobile unit."

#### **F. "triangulation"**

The term "triangulation" is used in claim 31 of the '763 patent: "wherein the positional data is acquired using a system selected from the group consisting of a global positioning system and

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<sup>2</sup> The "Emergency 911" service appears on both the left and right side of Figure 8. But the "Emergency 911" in the right-hand column, block 110, is "emergency 911 call *accounting*." ('822 patent, 12:45-46).

*triangulation*.” This term is found in the specification: “The first step in the registration process, block 102 is to determine the exact geographic location, block 201 of the communications device via either GPS, block 202, signal strength, block 203, Loran, block 204, *triangulation* or other similar location means.” (‘763 patent, 11:34-39) (emphasis added). EMSAT and LBS argue that “triangulation” covers “a method of calculating an unknown point, used by position determining systems such as LORAN, by forming a triangle having the unknown point and two known points as the vertices.” On the other hand, Centennial asserts the following construction: “a method of calculating the location of an object by determining the angles from the object to two points having known locations.”

The defendant argues that triangulation requires determining angles. Several dictionary definitions support Centennial’s argument. *See* Navigation Dictionary 260 (2d ed. 1969). In its strictest sense, triangulation differs from trilateration, which measures distances instead of angles. Dictionary.com, <http://dictionary.reference.com/browse/trilateration>. But in the field of mobile phone location, rather than navigation or surveying, the defendant conceded that “triangulation” has a broader connotation that includes distance measurement.

Although the court is persuaded that “triangulation” as a generic concept might conceivably encompass GPS, the ‘763 patent explicitly refers to GPS as separate and distinct from triangulation. Claim 31 states that the mobile unit’s position “is acquired using a system selected from the group consisting of a global positioning system and triangulation.” Likewise, the specification explains, “The preferred means for establishing exact geographic location (EGL) is a satellite communication system such as discussed in the incorporated material. However, other means, including, but not limited to, *triangulation* and the like, can be used . . . .” (‘763 patent, 16:50-54) (emphasis added).

GPS is disclosed a means for determining exact geographic location that uses satellites. ('763 patent, 9:24-26). Thus GPS is different from triangulation. As such, the court construes "triangulation" to mean " a method, distinct from GPS, of calculating an unknown point by measuring the distance or angles of two or more reference points."

## **VI. Conclusion**

The court adopts the constructions set forth in this opinion for the disputed terms of the '611, '404, '822, and '763 patents. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the court.

SIGNED this 23rd day of June, 2010.

  
CHARLES EVERINGHAM IV  
UNITED STATES MAGISTRATE JUDGE